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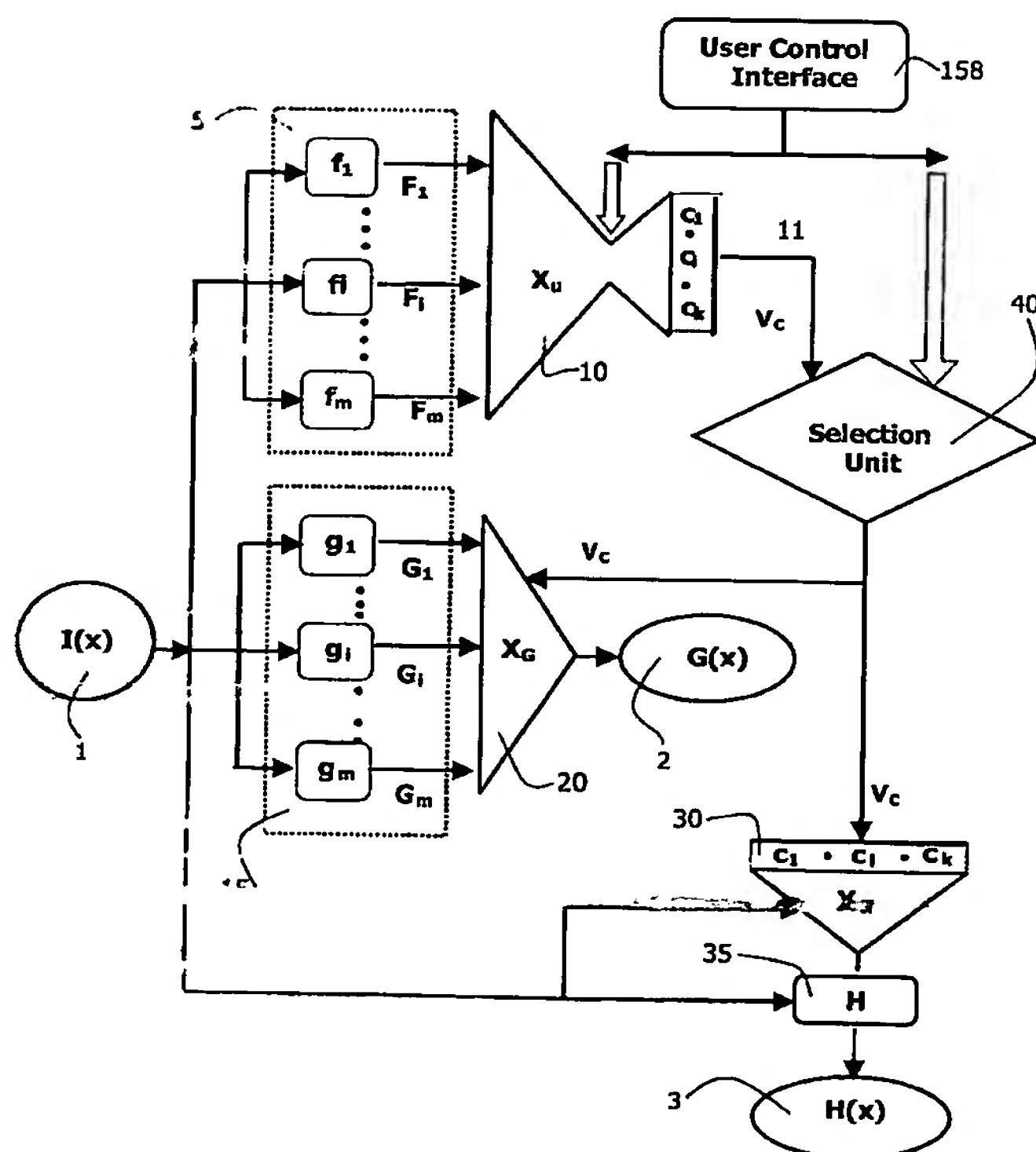
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(54) Title: IMAGE VIEWING SYSTEM AND METHOD FOR GENERATING FILTERS FOR FILTERING IMAGE FEATURES
ADAPTED TO THEIR TYPE

(57) Abstract: Image processing system for generating a multidimensional adaptive oriented filter to be applied to the point intensities of a d-dimensional image, comprising analyzing means with means (5, fi) to estimate at each image point a probability measure (Fi) of the presence of a type of feature of interest and a weighting control model (10) issuing a weighting control vector (11, VC) constructed from said probability measure, for the user to control synthesized adaptive kernels at each image point; and synthesizing means for generating the filter kernels at each image point adapted to the type of the features of interest, whose filtering strength is controlled by the weighting control vector. The system may comprise a selection unit (40) for the user to select synthesizing means for generating "pre-mixing filtering means" comprising combining means (30, XH) dependent on the type of the image features having inputs for the weighting control vector (11, VC) and the image data [I(x)] and having an output for weighted adaptive kernels (35, H) adapted to the type of the image features to produce the filtered image signal [F(x)], and/or "post-mixing filtering means" comprising both isotropic and anisotropic filtering means [15, gi] applied independently of the type of the image features, whose outputs (Gi) are combined at each image point and adapted using the weighting control vector (11, VC) to produce the filtered image signal [G(x)].

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